DOCUMENT RESUME

ED 102 170 95 TM 004 139

TITLE IEA Six-Subject Survey Instruments: Science Student Questionnaires.

INSTITUTION International Association for the Evaluation of Educational Achievement, Stockholm (Sweden).

SPONS AGENCY Ford Foundation, New York, N.Y.; Leverhulme Trust, London (England).; Office of Education (DHEW), Washington, D.C.; Tri-Centennial Fund, Stockholm (Sweden).; Volkswagen Foundation, Hanover (West Germany).

NOTE 36p.; For related documents, see TM 004 138-163 and ED 034 290 and 300

EDRS PRICE MF-$0.76 HC-$1.95 PLUS POSTAGE

DESCRIPTORS *Academic Achievement; Background; College Bound Students; *Comparative Education; *Cross Cultural Studies; Elementary Education; Elementary School Students; Grade 12; High School Students; Junior High Schools; Junior High School Students; *Questionnaires; *Sciences; Secondary Education; Student Attitudes

IDENTIFIERS *International Evaluation Educational Achievement

ABSTRACT

In 1965 the International Association for the Evaluation of Educational Achievement (IEA) inaugurated a cross-national survey of achievement in six subjects: Science, Reading Comprehension, Literature, English as a Foreign Language, French as a Foreign Language, and Civic Education. The overall aim of the project was to use international tests in order to relate student achievement and attitudes to instructional, social, and economic factors, and from the results to establish generalizations of value to policy makers worldwide. Contained here are three Science Questionnaires surveying the following information for the following student populations: Science Questionnaire measuring background in Science (populations II and IV); and two Science Attitude and Descriptive Scales measuring the part Science plays in the students' lives (populations I,II,IV). Population I consists of students aged 10 to 11 years; population II, 14 to 15 years; and population IV, students enrolled in the final year of pre-university training. Answer keys and statistical data can be found in ED 081 639. (RC)

IEA SIX-SUBJECT SURVEY INSTRUMENTS

The basic procedures to be followed in the main testing of the IEA Six-Subject Survey were set out in a series of manuals:

Stage 2	IEA/M1	Manual for National Centers
	IEA/M2	Manual for School Coordinators
	IEA/M3	Manual for Test Administrators
Stage 3	IEA/M1/Stage 3	Manual for National Centers
	IEA/M2/Stage 3	Manual for School Coordinators
	IEA/M3/Stage 3	Manual for Test Administrators

These manuals are available from ERIC Clearinghouse.

The following extracts from these manuals have been appended to this particular IEA instrument to provide researchers with the minimum necessary test instruction information (e.g., such things as the instructions on the practice items and the warnings concerning the amount of time left for the test have been omitted here). For full details, please consult the appropriate manuals.

The Data Bank Instrument Number which appears below is a new number, assigned since the instruments were administered for the purpose of easily linking items in the instruments with the resultant variables in the Data Bank holdings. Each such variable is named in the codebook using the new instrument number and (usually) the number of the item within the instrument from which the variable is derived. The key to the new instrument numbers is as follows:

1: Type of Instrument

E = Examination (student)
Q = Questionnaire (student)
T = Teacher questionnaire
S = School questionnaire

2: Student Population

1 = I	6 = II and IV
2 = II	7 = I, II and IV
3 = III	8 = I and IV
4 = IV	S = IV Specialist
5 = I and II	N = NA: Teacher or School questionnaire

3: Subject

S = Science
R = Reading Comprehension
L = Literature
M = Mother Tongue (Reading Comprehension and Literature)
E = English as a Foreign Language
F = French as a Foreign Language
C = Civic Education
2 = All Stage 2 Subjects
3 = All Stage 3 Subjects
5 = All Stage 2 and Stage 3 Subjects

4-5: Instrument Within Type

One or two characters used when necessary to uniquely identify each instrument when there is more than one instrument of the same type.

Instrument Name Science Questionnaire

Data Bank Instrument Number QCSS

IEA/IS
Pop II, p. 6
Pop IV, p. 7-8

"Take out booklet 5 (Pop IV: Booklet 12) from your envelope. Also, take the pink answer card 4 from the small envelope of answer cards."
Check to see that the students have taken out the appropriate booklet and answer card.
Now say:-

"Booklet 5 (Pop IV: Booklet 12) contains a number of questions about you and your study of Science. It is not a test. You are to answer the questions in this section as accurately as you can. You will record your answers to the questions in this section on answer card 4 in Section 5 on the front of your card. As before, you will indicate your answers by blackening in the oval that corresponds to the answer you chose."

Make sure that all students know where to record their answers on the answer card. Ask the students if they have any questions.
Then say:-

"Turn over the page and begin."

IEA/S
IEA/12S

STUDENT QUESTIONNAIRE (ST 2)

SCIENCE

Biology, Chemistry, Physics, General Science (N.C. to define), Geology, Astronomy.

1. Are you currently taking any of the above Science subjects?

   If not, when did you last study one?

   A. Yes

   B. Last year

   C. 2 years ago

   D. 5 or more years ago

   E. Have never taken any Science subject

2. How important has a knowledge of Mathematics been to you in studying Science (indicate one).

   A. It has been very important; I could not have learned Science without it.

   B. It has been important, but I could have learned Science without it.

   C. It has not been important, but it has helped me on occasions.

   D. It has been of no importance; I have not needed it to learn Science.

   E. I have never studied a Science subject.

Including this year, indicate how many years altogether you have studied each of the subjects listed below.

3. General Science (National Center to define)

A. I have never studied this subject B. ≤ 1 C. > 1 ≤ 3

D. > 3 ≤ 5 E. > 5

4. Biology (including Zoology and/or Botany) (not as part of General Science)

A. I have never studied this subject B. ≤ 1 C. > 1 ≤ 3

D. > 3 ≤ 5 E. > 5

5. Chemistry (not as part of General Science)

A. I have never studied this subject B. ≤ 1 C. > 1 ≤ 3

D. > 3 ≤ 5 E. > 5

6. Physics (not as part of General Science)

A. I have never studied this subject B. ≤ 1 C. > 1 ≤ 3

D. > 3 ≤ 5 E. > 5

For each of the subjects listed below, please indicate the number of students in your class. If you are not taking the subject indicate A.

7. General Science (National Center to define)

A. I do not take this subject B. Fewer than 20 students

C. 21 - 35 D. 36 - 50

E. 51 or more

8. Biology (including Zoology and/or Botany) (not as part of General Science)

A. I do not take this subject B. Fewer than 20 students

C. 21 - 35 D. 36 - 50

E. 51 or more

9. Chemistry (not as part of General Science)

A. I do not take this subject B. Fewer than 20 students

C. 21 - 35 D. 36 - 50

E. 51 or more

10. Physics (not as part of General Science)

A. I do not take this subject B. Fewer than 20 students

C. 21 - 35 D. 36 - 50

E. 51 or more

For each of the subjects listed below, indicate about how many hours of homework you do each week. If you are not taking the subject indicate A.

11. General Science (National Center to define)

A. I do not take this subject B. ≤ 1 C. > 1 ≤ 3

D. > 3 ≤ 5 E. > 5

12. Biology (including Zoology and/or Botany) (not as part of General Scienc

A. I do not take this subject B. ≤ 1 C. > 1 ≤ 3

D. > 3 ≤ 5 E. > 5

13. Chemistry (not as part of General Science)

A. I do not take this subject B. ≤ 1 C. > 1 ≤ 3

D. > 3 ≤ 5 E. > 5

14. Physics (not as part of General Science)

A. I do not take this subject B. ≤ 1 C. > 1 ≤ 3

D. > 3 ≤ 5 E. > 5

For each of the subjects listed below, indicate how many hours a week of instruction (including laboratory work) you receive. If you are not taking the subject indicate A.

15. General Science (National Center to define)

A. I do not take this subject B. ≤ 2 C. $>2\leq 4$

D. $>4\leq 6$ E. >6

16. Biology (including Zoology and/or Botany) (not as part of General Science)

A. I do not take this subject B. ≤ 2 C. $>2\leq 5$

D. $>5\leq 10$ E. >10

17. Chemistry (not as part of General Science)

A. I do not take this subject B. ≤ 2 C. $>2\leq 5$

D. $>5\leq 10$ E. >10

18. Physics (not as part of General Science)

A. I do not take this subject B. ≤ 2 C. $>2\leq 5$

D. $>5\leq 10$ E. >10

For each of the subjects listed below, indicate what fraction of the time given to a subject you spend in doing practical work, for example studying and drawing specimens, doing experiments or working outside in the field. If you are not taking the subject indicate A.

19. General Science (National Center to define)

A. I do not take this subject B. 0 or very little C. about $\frac{1}{4}$

D. about $\frac{1}{2}$ E. about $\frac{3}{4}$ or more

20. Biology (including Zoology and/or Botany) (not as part of General Science)

A. I do not take this subject B. 0 or very little C. about $\frac{1}{4}$

D. about $\frac{1}{2}$ E. about $\frac{3}{4}$ or more

21. Chemistry (not as part of General Science)

A. I do not take this subject B. 0 or very little C. about $\frac{1}{4}$

D. about $\frac{1}{2}$ E. about $\frac{3}{4}$ or more

22. Physics (not as part of General Science)

A. I do not take this subject B. 0 or very little C. about $\frac{1}{4}$

D. about $\frac{1}{2}$ E. about $\frac{3}{4}$ or more

ACCOMPANYING NOTES (SET 2)

POPULATIONS II AND IV

Note: Please ensure that when preparing national versions of this questionnaire that the language used is appropriate for fourteen-year-old and pre-university students.

The Student Questionnaire is divided into a general section for all students to answer and separate specific subject sections. The specific subject sections are to be given to students tested in specific subject areas. Thus, a student being tested in Science only will receive the General Student Questionnaire and the Science Student Questionnaire. A student being tested in Science, R.C. and Literature will receive the General Student Questionnaire and the student Science, R.C. and Literature questionnaires.

These notes which now follow refer to specific items in the questionnaires and are intended to help National Centers in translating the questionnaires. If you have any further queries, please write to IEA International immediately.

SCIENCE

Every attempt should be made by National Centers to ensure that every student answers every question.

Q.1 Please note the horizontal line between responses A and the rest B-E. Please adapt nationally as you think fit but be sure that the students understand how to answer it.

GENERAL NOTES

1. Instructions for all questionnaires should encourage all respondents to give a response to every item (except items 28-59 in the Teacher Mother Tongue questionnaire which M.T. teachers not teaching literature should omit). It is left to National Centers to frame the statement for their own countries. Indeed, test administration and school co-ordinators should be asked by National Centers to ensure that all questionnaire items are completed.

2. Obviously greater freedom is permissible in the translation of questionnaire items than in test items. In some instances items will have to be completely adapted for national use. However, where an international code has been provided, it is essential that the information is obtained nationally in such a way that the international coding can be applied.

3. In the stem of most questions the word "indicate" has been used. Where the National Center has decided to use an NRC answer card, the stem will have to be changed to read something like "indicate by blackening in the appropriate space on the answer card". Where punch cards will be returned by a National Center, their stem should be changed to something like "indicate by circling the appropriate letter below".

4. All questions in which the response indicates the grouping of a continuous variable, a short-hand convention using the signs $\geq$ (less than or equal to) and $<$ (greater than) has been used. National Centers should translate these signs into appropriate words for the respondents to the questionnaires. The convention has been used for the sake of accuracy.

5. Wherever Mother Tongue is printed in parentheses, the actual Mother Tongue should be inserted.

6. Where appropriate, national examples should be given in order to help respondents answer the questions accurately.

7. Unscaled Variables. Where it has been difficult to evolve an international scale which adequately represents different practices in participating countries, the variable has been designated as an [illegible] variable. National Centers are asked to formulate for each of these variables up to a nine-point scale which will

be appropriate for use within their country and which agrees with the general outline provided in the specific accompanying notes. The purpose of this outline is to ensure a certain uniformity of categorisation between the different countries, that is, all countries should collect data on the same dimension and ordered in the same way. It is important that National Centers transmit copies of their classificatory schemes to the IEA International.

8. In order to secure the most accurate information to questionnaire items, countries may wish to consider assigning several of the items as 'home tasks' for the student. Students would be asked to find out the answers to several of the items in preparation for completing the questionnaire. Such items which could profitably be assigned as 'home tasks' include Father's Occupation and Father's and Mother's Education.

9. In a number of countries, students will require some guidance from teachers in answering questionnaire items. Such guidance is appropriate and desirable. It is quite possible that, in some situations, teachers will read questionnaire items aloud, discuss points of clarification, allow time for students to supply an answer and proceed to the next item. Such a step by step approach to the completion of the student questionnaire may be necessary at the 10-year-old level in various countries where students have had little or no experience with questionnaires. Where students may be expected to give the same answer (e.g.,number of students in class, grade student is in etc.) the best procedure is for the teacher to supply the answer and get all students to enter it in. It is, of course, clear that no help will be given to students when answering the tests (as opposed to the questionnaires).

10. Where students are requested to give a quantitative response to an item, e.g. number of hours of homework, these are to be coded to the nearest whole hour, year, etc.

11. Where a response of zero or none is given to a questionnaire item, this is to be coded 0 on the punch card. Where an individual has failed to record a questionnaire item, the appropriate column should be left blank. The distinction between a blank and a zero is an important one.

12. Wherever coding or punching schemes are being used in the coding of responses, minimum and maximum values for each variable are set forth in the interrational coding scheme. Where a student indicates a response which is greater than the maximum value, it is to be coded as the maximum value. Thus, if the maximum value for a certain variable is 25, a response of 30 would be coded as 25, since 25 means 25 or more.

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Instrument Name The Place of Science in the School and in the World Outside

Data Bank Instrument Number Q6SK

IEA/M3

Pop II, p. 7

Pop IV, p. 8

"We are now ready to start Section K. In this section you will mark your answers to the questions in the appropriate place in Section K on the answer card."

Point out Section K on the answer card.

"You will have about 15 minutes to answer the questions in this section. Read the directions on the first page of Section K. When you have finished, turn over the page and begin."

  IEA/5K
IEA/12K

THE PLACE OF SCIENCE IN

THE SCHOOL

AND IN THE WORLD OUTSIDE

These questions are being given to a number of children in several countries to find out what they think about Science and the part it plays in their lives. For most of the questions there are no right or wrong answers, so this is NOT a test. We just want to know what you think.

Mark your answer by blacking in the appropriate space in Section K of your answer card. If you want to change an answer, be sure to erase the old mark completely.

For each of these four questions, select the best answer, and indicate it by marking the appropriate space on your answer card.

1. The marks I get in Science are usually .....

   A. better than in most other subjects.
   B. about average compared with other subjects.
   C. worse than in most other subjects.

2. I like Science .....

   A. more than most other subjects.
   B. about the same as other subjects.
   C. less than most other subjects.

3. I would like to study Science after the end of this school year.

   A. Yes.
   B. Not sure.
   C. No.

4. I hope that in my career I will be able to make use of some of the Science I learned at school.

   A. Yes.
   B. Not sure.
   C. No.

Below is a list of things you might do outside school. Look at each one and if it is something you do very often or used to do very often, mark A. If you have ever done it at all, mark B. If you have never done it, mark C.

5. Visit a Science museum.

   A. Often.
   B. Sometimes.
   C. Never.

6. Go to meetings of a scientific club.

   A. Often.
   B. Sometimes.
   C. Never.

Q6SK

7. Build working models of ships. cars or aeroplanes.

A. Often
B. Sometimes.
C. Never.

8. Build a radio set or other piece of electronic apparatus.

A. Often.
B. Sometimes.
C. Never.

9. Visit an airfield to watch the planes.

A. Often.
B. Sometimes.
C. Never.

10. Visit a harbour to watch the ships.

A. Often.
B. Sometimes.
C. Never.

11. Read a science fiction book.

A. Often.
B. Sometimes.
C. Never.

12. Look at the moon or the planets through a telescope.

A. Often.
B. Sometimes.
C. Never.

13. Do Chemistry experiments with your own equipment.

A. Often.
B. Sometimes.
C. Never.

Below is a list of some things you may do. If you do, mark A. If you do not, but would like to, mark B. If you are not interested to do it, mark C.

14. Make a hobby of studying or collecting flowers or leaves.

A. I do it.
B. I would like to.
C. I am not interested.

15. Make a hobby of studying or collecting insects.

A. I do it.
B. I would like to.
C. I am not interested.

16. Make a hobby of studying or collecting rocks or fossils.

A. I do it.
B. I would like to.
C. I am not interested.

For each of the following statements, please decide whether or not you agree with it, and then indicate this by choosing the appropriate letter. If you STRONGLY AGREE, mark A. If you AGREE, mark B. If you ARE UNCERTAIN, mark C. If you DISAGREE, mark D. If you STRONGLY DISAGREE, mark E.

17. I like reading about Science.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

18. Science is steadily destroying the world.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

19. Science has many technical terms which are hard to remember.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

20. Science helps to make the world a better place to live in.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

21. Science is a very difficult subject.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

22. Science is no good for people.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

23. I enjoy watching (listening) Science programmes on T.V. (radio).

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

24. Science makes life more pleasant.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

25. There are too many facts to learn in Science.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

26. Scientific discoveries will eventually lead to people not thinking for themselves.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

27. I am very interested to learn all I can about Science.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

28. Science is making us slaves to machines.

A. I strongly agree.
B. I agree.
C. I am uncertain.
D. I disagree.
E. I strongly disagree.

Science in our School

The statements in this quiz are descriptions of the sort of science lessons students about your age have at school. They cover a range of topics about Science lessons, and it has been found that, for some people, each statement is true always, for some never, and for some occasionally.

For each of the statements on the following pages, indicate your answer according to whether for you the statement is true always, sometimes or never. Begin with question 29, and work through the questions in order.

29. We learn most of our Science through practical work and experiments.

A. Always.
B. Sometimes.
C. Never.

30. Our Science teacher tests us only on what is in the textbook.

A. Always.
B. Sometimes.
C. Never.

31. Students are encouraged to read Science magazines and reference books to become familiar with all aspects of Science.

A. Always.
B. Sometimes.
C. Never.

32. We have a textbook for Science.

A. Always.
B. Sometimes.
C. Never.

33. For Science homework we write up our laboratory and practical work.

A. Always.
B. Sometimes.
C. Never.

34. Our Science classes contain more theoretical work than practical work.

A. Always.
B. Sometimes.
C. Never.

35. During our Science lessons the amount of time we spend reading our textbooks is about

A. 1/4 or less.
B. Half.
C. 3/4 or more.

36. The main aim of our Science lessons is to understand our textbooks.

A. Always.
B. Sometimes.
C. Never.

37. We are encouraged to take part in fieldwork and scientific research outside school.

A. Always.
B. Sometimes.
C. Never.

38. Our Science lessons include laboratory experiments in which we all take part.

A. Always.
B. Sometimes.
C. Never.

39. Our Science homework requires using a textbook.

A. Always.
B. Sometimes.
C. Never.

40. We make observations and do experiments during our Science lessons.

A. Always.
B. Sometimes.
C. Never.

If you do not do any laboratory work during your Science lessons, you do not need to answer questions 41-48.

41. When we work in the laboratory we are given complete instructions from the teacher as to what to do.

A. Always.
B. Sometimes.
C. Never.

42. We use a book which tells us how to do our experiments in the laboratory

A. Always.
B. Sometimes.
C. Never.

43. We usually make up our own problems and then the teacher helps us to solve them experimentally.

A. Always.
B. Sometimes.
C. Never.

44. In class we are encouraged to devise our own projects and experiments, either individually or in groups.

A. Always.
B. Sometimes.
C. Never.

45. Our Science teacher demonstrates how to carry out the experiments before we do them.

A. Always.
B. Sometimes.
C. Never.

46. In our practical work our teacher gives us certain problems to solve and then leaves us to find our own methods and solutions.

A. Always.
B. Sometimes.
C. Never.

47. The teacher gives us questions to answer while we do our experiments.

A. Always.
B. Sometimes.
C. Never.

48. We do our practical work from laboratory cards or instructions which tell us how to carry out the experiment.

A. Always.
B. Sometimes.
C. Never.

Accompanying Notes

Notes for interpretation and translation

Population II and IV

Item 1 "marks" may be translated as "grades" or some other indication of the quality of work.

Item 3 If the study of Science is not optional, a National Center may wish to substitute a statement "I look forward to studying Science after ....."

Item 5 "exhibition", "exposition" or "library" may be substituted for museum" if more appropriate.

Item 6 "club" here means any gathering, formal or informal, at which attendance is voluntary.

Item 8 It is understood that this is an uncommon activity, and it should not be replaced merely for this reason. If it seems clear that only 2% or fewer of 10-year-old students are likely to be able to respond positively to this item, then an alternative should be substituted, although it is requested that the substitute be also a fairly complex scientific activity.

Item 11 National Centers may substitute any type of Science book or magazine other than school text book.

Item 12 If telescopes are rare or unknown, then any deliberate astronomical activity is acceptable.

Item 18 "the world" here may be taken to mean the general natural and cultural environment of mankind.

Item 19 This item deals with the jargon and other unfamiliar words required by academic Science.

Item 21 The intent of this item is that Science is a subject that is difficult to study, not necessarily that the student obtains poor grades for it.

Item 22 This is somewhat colloquial; and a literal translation may not be appropriate.

Item 23 "listening to the radio" may be substituted for "watching T.V."

Item 25 This refers to the study of Science in school.

Item 26 National Centers may substitute other words for "slaves" and "machines" to avoid the translated form appearing clumsy. The idea to get across is that machines are becoming the masters of the human race.

Item 29 This item implies that the student or teacher carries out experimental work or demonstrations, and not that the Science that is learned is composed of descriptions of experimental work carried out by other people.

Item 30 The item is intended to imply that the teacher regards the content of the text book as being adequate coverage of his curriculum, and regards the text book as important.

Item 31 This question may be reworded to include forms of written source material other than the Science text book.

Item 32 "We have" could translated as "We use".

Item 33 If this item seems inappropriate to the local conditions, it may be replaced by a statement which implies that the Science homework is devoted to Science related activities separate from learing material in the text book or solving problems taken therefrom.

Item 34 We are interested here in the allocation of time between the two modes of activity to the extent that they can be distinguished.

Item 35 Note that this item has been revised. The new form is given in the errata section of the yellow bulletin.

Item 37 "outside school" can include both outside regular school hours and outside the school classroom. It covers all extra-mural or extra-curricular scientific activities.

Item 39 In those countries using the English language, we suggest that the word "using" be replaced by "the use of".

Item 40 This item differs from item 39 in that it does not imply necessarily that a laboratory is available.

NOTE: The test administrators should decide whether questions 41 - 48 are appropriate or not for the whole class and an appropriate instruction to this effect should be included in the instructions to test administrators (that is, Manual 3).

Item 45 This item implies that the students do carry out the experiments after they have been demonstrated, and this point must to made clear.

Item 47 The intent of this item is to discover if while allowing the students considerable freedom the teacher helps to structure the situation by posing questions which are intended to help the student direct his activities.

Item 48 This question is different from question 42 in that it suggests not merely a written outline of the experimental work is provided, but detailed instructions covering every piece of student behaviour.

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The following extracts from these manuals have been appended to this particular IEA instrument to provide researchers with the minimum necessary test instruction information (e.g., such things as the instructions on the practice items and the warnings concerning the amount of time left for the test have been omitted here). For full details, please consult the appropriate manuals.

The Data Bank Instrument Number which appears below is a new number, assigned since the instruments were administered for the purpose of easily linking items in the instruments with the resultant variables in the Data Bank holdings. Each such variable is named in the codebook using the new instrument number and (usually) the number of the item within the instrument from which the variable is derived. The key to the new instrument numbers is as follows:

1: Type of Instrument

E = Examination (student)
Q = Questionnaire (student)
T = Teacher questionnaire
S = School questionnaire

2: Student Population

1 = I
2 = II
3 = III
4 = IV
5 = I and II
6 = II and IV
7 = I, II and IV
8 = I and IV
S = IV Specialist
N = NA: Teacher or School questionnaire

3: Subject

S = Science
R = Reading Comprehension
L = Literature
M = Mother Tongue (Reading Comprehension and Literature)
E = English as a Foreign Language
F = French as a Foreign Language
C = Civic Education
2 = All Stage 2 Subjects
3 = All Stage 3 Subjects
5 = All Stage 2 and Stage 3 Subjects

4-5: Instrument Within Type

One or two characters used when necessary to uniquely identify each instrument when there is more than one instrument of the same type.

Instrument Name The Place of Science in the School and in the World Outside

Data Bank Instrument Number Q1SK

"We are now ready to start Section K, which is the next section in your booklet. The answers to this section are to be marked in part K on the other side of your answer card."
Indicate part K of the answer card.
"Follow the directions on the first page of section K as I read them to you. These questions are being given to a number of children in several countries to find out what they think about science and the part it plays in their lives. For most of the questions there are no right or wrong answers so this is not a test. We just want to know what you think. When you are told to do so, work through the questions, indicating the answers you want to give. The answers should be put in Section K on your answer card. Now turn the page to the first set of questions and begin."

IEA/1K

THE PLACE OF SCIENCE
IN THE SCHOOL
AND IN THE WORLD OUTSIDE

These questions are being given to a number of children in several countries to find out what they think about Science and the part it plays in their lives. For most of the questions there are no right or wrong answers, so this is NOT a test. We just want to know what you think.

The answers to these questions should be put in Section K on your answer card. Blacken in the oval which contains the letter of the answer you choose for each question. If you wish to change an answer you may, but be sure to erase the mark for the old answer completely.

For each of these four questions, select the best answer, and indicate it by marking the appropriate letter.

1. The marks I get in Science are usually .....

   A. better than in most other subjects.
   B. about average compared with other subjects.
   C. worse than in most other subjects.

2. I like Science .,.....

   A. more than most other subjects.
   B. about the same as other subjects.
   C. less than most other subjects.

3. I would like to study Science after the end of this school year.

   A. Yes.
   B. Not sure.
   C. No.

4. I hope that in my career I will be able to make use of some of the Science I learned at school.

   A. Yes.
   B. Not sure.
   C. No.

Below is a list of things you might do outside school. Look at each one and if it is something you do very often or used to do very often, mark A. If you have ever done it at all, mark B. If you have never done it, mark C.

5. Visit a Science museum.

   A. Often.
   B. Sometimes.
   C. Never.

6. Go to meetings of a scientific club.

   A. Often.
   B. Sometimes.
   C. Never.

7. Build working models of ships, cars or aeroplanes.

A. Often.
B. Sometimes.
C. Never.

8. Build a radio set or other piece of electronic apparatus.

A. Often.
B. Sometimes.
C. Never.

9. Visit an airfield to watch the planes.

A. Often.
B. Sometimes.
C. Never.

10. Visit a harbour to watch the ships.

A. Often.
B. Sometimes.
C. Never.

11. Read a science fiction book.

A. Often.
B. Sometimes.
C. Never.

12. Look at the moon or the planets through a telescope.

A. Often.
B. Sometimes.
C. Never.

13. Do Chemistry experiments with your own equipment.

A. Often.
B. Sometimes.
C. Never.

Below is a list of some things you may do. If you do, mark A. If you do not, but would like to, mark B. If you are not interested to do it, mark C.

14. Make a hobby of studying or collecting flowers or leaves.

A. I do it.
B. I would like to.
C. I am not interested.

15. Make a hobby of studying or collecting insects.

A. I do it.
B. I would like to.
C. I am not interested.

16. Make a hobby of studying or collecting rocks or fossils.

A. I do it.
B. I would like to.
C. I am not interested.

For the following questions indicate whether each of the statements is usually true for you in your school.

17. We have regular Science lessons.

A. Yes.
B. No.

18. We have a textbook for Science.

A. Yes.
B. No.

19. Our Science lessons include laboratory experiments in which we all take part.

A. Yes.
B. No.

20. We make observations and do experiments during our Science lessons.

A. Yes.
B. No.

21. The teacher gives us questions to answer while we do our experiments.

A. Yes.
B. No.

22. We usually make up our own problems and design our own experiments.

A. Yes.
B. No.

Notes for interpretation and translation

Population 1

Item 1 "marks" may be translated as "grades" or some other indication of the quality of work.

Item 3 If the study of Science is not optional, a National Center may wish to substitute a statement "I look forward to studying Science after ....."

Item 5 "exhibition", "exposition" or "library" may be substituted for museum" if more appropriate.

Item 6 "club" here means any gathering, formal or informal, at which attendance is voluntary.

Item 8 It is understood that this is an uncommon activity, and it should not be replaced merely for this reason. If it seems clear that only 2% or fewer of 10-year-old students are likely to be able to respond positively to this item, then an alternative should be substituted, although it is requested that the substitute be also a fairly complex scientific activity.

Item 11 National Centers may substitute any type of Science book or magazine other than school text book.

Item 12 If telescopes are rare or unknown, then any deliberate astronomical activity is acceptable.